

HYDROGEN STORAGE AND GENERATION SYSTEM

Abstract of the Invention

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A hydrogen storage and generation system are disclosed. The fuel source of the present invention comprises a chemical hydride core, and an elongate, flexible moisture barrier encasing the core. The core may be formed by a plurality discrete bodies of NaH or NaBH₄, and the barrier may be a thermoplastic. A hydrogen generator of the present invention comprises a

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reaction chamber, a spool, and a fuel source wrapped around the spool, the fuel source comprising a chemical hydride core encased in an elongate moisture barrier. The generator also has means for removing the barrier from the core to permit the core to react with water or moisture in the reaction chamber. The generator may also have a second reaction chamber so

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that heat may be transferred from the first reaction chamber to the second reaction chamber for driving a reaction of Al and H₂O, thereby generating additional hydrogen.